# Common mistakes you won't make when you give a talk

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# Introduction

- Most of us figure out sooner or later, by trial and error, how to give a pretty good talk
  - but if "trial and error" involves a job interview, or a major conference talk…
  - Sooner is better than later
- Nothing here is "rocket science" – nor is it particularly specific to HEP
- We've all made these mistakes before!

# 1. You haven't figured out your message

- You should know the message you want to give
  - Context
  - What is new
  - Why is this important
  - Why should anyone give a rat's ass anyway

  - e.g.

    good:
    - "We have measured a new value of the top mass with a much reduced error"

    better
    - "… which we did by exploiting more information per event…"

      "… and the result is very interesting because of its implications for the mass of the Higgs…"

# 2. You fail to tell a story

- The talk should have a plot – it should follow a story line
- Use plots to help tell the story and make the points you need to make
  - not because you happen to have them
- The fraction of your talk devoted to each topic should reflect its importance
  - not how much trouble it was

- The outline of your talk should follow the oldest rule of journalism
  1. Tell them what you're going to tell them
  2. Tell them
  3. Tell them what you just told them

    - For conference talks, the story is about DØ
    - For job talks, the story must also be about you
      - And you'll need to connect the various things you did

# 3. You don't understand what you wrote

- **Don't copy blindly**
- **Unless you can explain it, it doesn't belong on your slides**

# 4. You fail to know the background

- **Leaving things out doesn't absolve you of the need to know something about them**
  - **Make sure you know the basics that underlie everything you did**

- **Can you explain (for example)**
  - **How do the major pieces of the DØ detector work and why is it designed the way it is?**
  - **How were the data that you are using triggered?**
  - **What is included (or not included) in the simulation?**
  - **What is the theory model you are comparing to?**
  - **What is known about this subject from Run I, LEP, CDF…**

    - **You don't need to be able to give a whole other talk on these subjects. But you shouldn't just look blank, and you certainly shouldn't get it wrong.**

# 5. You don't know what to say

- You should know what to say when each slide comes up
  - Don't ever look surprised!
- For each plot, you should have one sentence or so to describe what you want the audience to get out of it
  - Don't say
    - "er, here is the efficiency plotted as a function of $p_T$"
  - Say
    - "as you can see here, the efficiency rises to 90% for $p_T$ above 15 GeV"

# 6. You misuse powerpoint

- **Less is more**
  - **Use a consistent style**
  - **Use color, graphics, animation to help guide the reader**
  - **See books by Edward Tufte for some good ideas**

My name, the date and how to contact me listed on every page

*Totally random choice of colors*

**And of fonts!**

**What is this box for?**

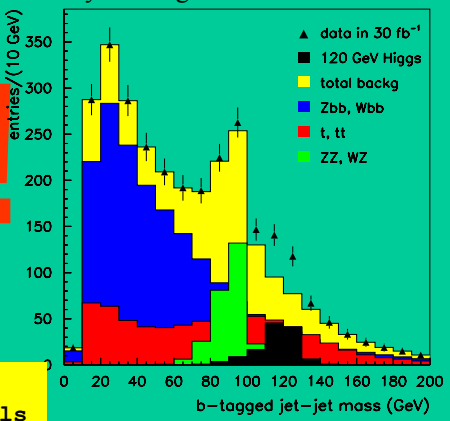
**TOO MUCH TEXT, MUCH TOO SMALL**

This document attempts to delineate the way in which D0 is managed. It may be considered to be a set of guidelines by which the present Spokespersons intend to operate.
The management structure proposed for the future is outlined in the following sections. The current structure which has been in existence for a long time and which is independent of the phase of D0 (taking data, building etc) is the executive committee and the spokesperson(s). In addition to this there are committees and groups whose importance and relevance depend more on current priorities in D0.
In this document we propose no change to the executive committee, but do propose to change its name to Institutional Board which reflects more its character. In addition to this we propose that there be a chairperson and deputy chairperson of the Institutional Board. We also propose to institute a small Advisory Council.
In sections 2, 3 and 4 the election/appointment and role of these bodies of governance is described. Section 5 describes the way in which the Spokespersons expect to manage the D0 Experiment. Section 6 gives a description of how committees are used and which are standing at this time. Section 7 makes a proposal for how to proceed to implement the plans contained in this document.
In addition to this document there are a series of documents which describe rules and guidelines for "Selection of the D0 Spokesperson ", "Authorship of DZero Publications","Publications", "Speakersbureau tasks",etc. These documents are all parts of how we do business in D0 and are in principle part of this document. For completeness the currently existing documents have been attached as Appendices I through VI.

**GRAPHICAL**

**OVERLOAD!**

**is hard to read**




Tiny plots
Tinier labels

**MY UNIVERSITY'S LOGO IS REALLY BIG**

**I must use all the space right to the edge!**

# 7. You try to show too many slides

- It's always the important ones at the end that get rushed or skipped
- 1 minute per slide is a standard measure and works well for me

# 8. You don't have a human touch

- A good speaker
  - Is relaxed
  - Makes frequent eye contact with the audience
  - Uses (the appropriate level of) humor where it helps make points
  - Answers questions during the talk without getting distracted
  - Conversational, friendly, rather than wooden, impersonal style

- A good speaker sells the talk, and him/herself too
  - But successful selling requires not being obvious about it

- These may be the hardest things to learn:
  - watch others
  - go to seminars and critique the speakers
  - practice!

# Conclusion

- Giving a good talk is a critical skill in high energy physics
  - Internally within the experiment
  - At conferences
  - In job interviews
  - Outreach
- It's a skill that we are not (all) instinctively good at, but it can be learned
  - Through watching others (not just in HEP)
  - Through practice
- While there are general good principles, there are also lots of individual approaches; find what works for you and your audiences
- It's a skill that can set high-energy physicists apart, when competing for jobs outside the field
  - We have lots of opportunities to get good at it
  - Use them wisely!